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Solid-state kinetics from time-resolved in situ XAFS investigations: reduction and oxidation of molybdenum oxides

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Abstract:

The reduction of MoO₃ with hydrogen was studied by in situ X-ray absorption spectroscopy. The experiments performed focused on elucidating phase composition and evolution with time under isothermal reduction conditions. From temperature programmed experiments short-range structural details about the early stage of the reduction were obtained.